NURSERY/LANDSCAPING
Curriculum Content Frameworks

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Curriculum Content Framework

NURSERY/LANDSCAPING

Grade Levels: 10, 11, 12	**Prerequisites: Agriculture Science and Technology or Agriculture Science**
Course Code: 491330	

Course Description: This course covers the production of plants, shrubs, and ornamental trees for transplanting to landscape designs. Propagation, designing plans, installation, maintenance, transportation and careers are included in the curriculum.

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Unit 1: Introduction to Nursery and Landscaping Industry
5 Hours

Terminology: Aesthetic, Entrepreneurship, Landscape architect, Landscape contractor, Landscape designer, Landscape industry, Landscape management, Nursery, Nursery industry, Nursery/Landscaping CDE, Ornamental horticulture, Placement, Proficiency

CAREER AND TECHNICAL SKILLS What The Student Should Be Able To Do		**ACADEMIC AND WORKPLACE SKILLS** What The Instruction Should Reinforce		
Knowledge	**Application**	**Skill Group**	**Skill**	**Description**
1.1 Define terms associated with the nursery and landscaping industry		Foundation	Reading	Uses written resources (books, dictionaries, directories) to obtain factual information [1.3.23]
1.2 Identify the economic scope of the nursery and landscaping industry in the United States		Foundation Personal Management	Arithmetic/ Mathematics Organizational Effectiveness	Applies a mathematical formula to solve a problem [1.1.3] Comprehends the organization's modes of operation [3.3.5]
1.3 Discuss careers available in the nursery and landscaping industry	1.3.1 Research a career in the nursery and landscaping industry to determine educational requirements, working conditions, and salary	Foundation Personal Management	Reading Career Awareness, Development, and Mobility	Applies information to job performance [1.3.4] Uses standard occupational resource materials [1.3.22] Develops skills to locate, evaluate, and interpret career information [3.1.4] Identifies education and training needed to achieve goals [3.1.8]
1.4 List the FFA opportunities available to students interested in nursery and landscaping management		Foundation Personal Management	Speaking Career Awareness, Development, and Mobility	Communicates a thought, idea, or fact in spoken form [1.5.5] Sets well-defined and realistic personal/career goals (short-term and long-term) [3.1.11]

Unit 2: Landscaping versus Xeriscaping
10 Hours

Terminology: Hydrozoning, Landscaping, Xeriscaping

CAREER AND TECHNICAL SKILLS What The Student Should Be Able To Do		**ACADEMIC AND WORKPLACE SKILLS** What The Instruction Should Reinforce		
Knowledge	**Application**	**Skill Group**	**Skill**	**Description**
2.1 Define landscaping and xeriscaping terms		Foundation	Reading	Uses written resources (books, dictionaries, directories) to obtain factual information [1.3.23]
			Writing	Uses technical words and symbols [1.6.20]
2.2 Discuss the purpose of landscaping	2.2.1 Evaluate landscapes in the area	Foundation	Speaking	Asks questions to obtain information [1.5.4]
		Thinking	Reasoning	Sees relationship between two or more ideas, objects, or situations [4.5.5]
2.3 List the basic principles of landscape design		Foundation	Writing	Adapts notes to a proper form [1.6.1]
		Thinking	Knowing How to Learn	Applies new knowledge and skills to landscape design [4.3.1]
2.4 Explain the basic principles of xeriscaping	2.4.1 Identify materials used in the xeriscaping process	Foundation	Writing	Applies/Uses technical words and concepts [1.6.4]
		Thinking	Problem Solving	Comprehends ideas and concepts related to xeriscaping [4.4.1]

Unit 3: Plant Selection
10 Hours

Terminology: Annual, Bare-rooted plant, Balled & burlapped, Bedding plants, Biennials, Botanical name, Branching habits, Bulb, Canopy, Common name, Containerized/container grown, Cultivar, Exotic plants, Fibrous, Foundation planting, Genus, Hardiness, Hedge, Herbaceous, Micro-climate, Native plants, Naturalized plants, Ornamental grass, Perennials, Root systems, Silhouette, Species, Tap root, Tree, Variety, Vine, Woody plants

CAREER AND TECHNICAL SKILLS What The Student Should Be Able To Do		**ACADEMIC AND WORKPLACE SKILLS** What The Instruction Should Reinforce		
Knowledge	**Application**	**Skill Group**	**Skill**	**Description**
3.1 Define terms associated with plant selection		Foundation	Reading	Uses written resources (books, dictionaries, directories) to obtain factual information [1.3.23]
			Writing	Uses technical words and symbols [1.6.20]
3.2 Identify shapes of plants used in landscapes	3.2.1 Identify shapes of plants in the community	Foundation	Reading	Identifies relevant details, facts, and specifications [1.3.16]
				Interprets drawings to obtain factual information [1.3.17]
		Thinking Skills	Reasoning	Sees relationship between two or more ideas, objects, or situations. [4.5.5]
3.3 Explain plant nomenclature		Foundation	Reading	Applies information and concepts derived from printed materials [1.3.3]
			Writing	Applies/Uses technical words and concepts [1.6.4]
3.4 Describe the factors relevant to proper plant selection		Foundation	Speaking	Communicates a thought, idea, or fact in spoken form [1.5.5]
		Thinking	Decision Making	Demonstrates decision-making skills [4.2.4]

CAREER AND TECHNICAL SKILLS What The Student Should Be Able To Do		ACADEMIC AND WORKPLACE SKILLS What The Instruction Should Reinforce		
Knowledge	**Application**	**Skill Group**	**Skill**	**Description**
3.5 Describe the uses and limitations of flowers in a landscape design		Foundation	Science	Applies a scientific principle to solve a problem [1.4.8]
		Thinking	Problem Solving	Draws conclusions from observations, evaluates conditions, and gives possible solutions [4.4.5]
3.6 Explain the differences between annual, perennial, and biennial flowers and plants		Foundation	Science	Acquires and processes scientific data [1.4.1]
		Thinking	Problem Solving	Comprehends ideas and concepts related to plant life cycle [4.4.1]

Unit 4: Landscape Design
15 Hours

Terminology: Axonometric views, Balance, Computer aided design (CAD), Elevation view, Focalization of interest, Foundation planting, Hardscape, Incurve, Landscape design, Line, Masses, Outcurve, Perspective, Plan view, Proportion, Rhythm & line, Simplicity, Subsoil, Topsoil, Unity, Voids

CAREER AND TECHNICAL SKILLS What The Student Should Be Able To Do		**ACADEMIC AND WORKPLACE SKILLS** What The Instruction Should Reinforce		
Knowledge	**Application**	**Skill Group**	**Skill**	**Description**
4.1 Define the terms associated with landscape design		Foundation	Reading	Uses written resources (books, dictionaries, directories) to obtain factual information [1.3.23]
			Writing	Uses technical words and symbols [1.6.20]
4.2 Perform measurements and duplicate angles	4.2.1 Read an architect's scale	Foundation	Arithmetic/ Mathematics	Calculates measurements taken from measuring devices [1.1.9]
		Personal Management	Career Awareness, Development, and Mobility	Analyzes own knowledge, skills, and ability [3.1.2]
4.3 Identify the traditional tools of the landscape designer	4.3.1 Draw a landscape design using traditional tools	Foundation	Reading	Locates pertinent information in documents such as manuals, graphs, and schedules to perform tasks [1.3.18]
		Personal Management	Organization Effectiveness	Applies knowledge to implement work-related system or practice [3.3.4]
4.4 Distinguish between plan views, elevations, perspective views, and axonometric views of landscape proposals		Foundation	Reading	Analyzes and applies what has been read to specific task [1.3.3]
		Thinking	Seeing Things in the Mind's Eye	Visualizes a system's operation from schematics [4.6.2]

CAREER AND TECHNICAL SKILLS What The Student Should Be Able To Do		ACADEMIC AND WORKPLACE SKILLS What The Instruction Should Reinforce		
Knowledge	**Application**	**Skill Group**	**Skill**	**Description**
4.5 Describe the basic principles that lead to good design		Foundation	Speaking	Communicates a thought, idea, or fact in spoken form [1.5.5]
		Thinking	Reasoning	Comprehends ideas and concepts related to landscape design [4.5.2]

Unit 5: Landscape Process
10 Hours

Terminology: Contour interval, Contour lines, Cut, Family living area, Fill, Functional diagrams, Final plans, Grading, Preliminary designs, Private living area, Public area, Service area, Site analysis, Slopes, Terrain, Topography

CAREER AND TECHNICAL SKILLS What The Student Should Be Able To Do		**ACADEMIC AND WORKPLACE SKILLS** What The Instruction Should Reinforce		
Knowledge	**Application**	**Skill Group**	**Skill**	**Description**
5.1 Define terms associated with the landscape process		Foundation	Reading	Uses written resources (books, dictionaries, directories) to obtain factual information [1.3.23]
			Writing	Uses technical words and symbols [1.6.20]
5.2 List features by which a site can be evaluated		Foundation	Writing	Analyzes data, summarizes results, and makes conclusions [1.6.2]
		Thinking	Creative Thinking	Creates new design by applying criteria specified in information sheet [4.1.3]
5.3 Explain the seasonal changes in a landscape	5.3.1 Select seasonal plants for a landscape	Foundation	Speaking	Participates in conversation, discussion, and group presentations [1.5.8]
		Thinking	Creative Thinking	Finds new ways of dealing with existing problems/situations [4.1.5]
5.4 Identify indoor and outdoor use areas		Foundation	Reading	Identifies relevant details, facts, and specifications [1.3.16]
		Thinking	Creative Thinking	Reshapes goals in ways that reveal new possibilities [4.1.9]

Unit 6: Landscape Contracting
5 Hours

Terminology: Client, Contract, Contractor, Estimate, Estimator, Subcontractor, Take-off

CAREER AND TECHNICAL SKILLS What The Student Should Be Able To Do		**ACADEMIC AND WORKPLACE SKILLS** What The Instruction Should Reinforce		
Knowledge	**Application**	**Skill Group**	**Skill**	**Description**
6.1 Define terms associated with landscape contracting		Foundation	Reading	Uses written resources (books, dictionaries, directories) to obtain factual information [1.3.23]
			Writing	Uses technical words and symbols [1.6.20]
6.2 List components of a contract	6.2.1 Create a contract for a site	Foundation	Writing	Produces neat, legible document from typewriter or computer [1.6.15]
		Interpersonal	Customer Service	Works with customers to satisfy their expectations [2.3.9]
6.3 Determine calculations needed for landscape take-offs		Foundation	Arithmetic/ Mathematics	Applies addition, subtraction, multiplication, and division to real-world situations [1.1.1]
		Thinking	Problem Solving	Draws conclusions from observations, evaluates conditions, and gives possible solutions [4.4.5]

Unit 7: Landscape Installation
15 Hours

Terminology: Antidesiccants, Calibration, Discharge rate, Drainage, Drip tubing, Emitter, Grading, Humus, Loam, Plugs, Precipitation rate, Rhizome, Seed analysis label, Sodding, Soil texture, Spray pattern, Sprigs, Sprinkler head, Sprinkler irrigation, Stolons, Stolonizing, Trickle irrigation, Turf

CAREER AND TECHNICAL SKILLS What The Student Should Be Able To Do		**ACADEMIC AND WORKPLACE** SKILLS What The Instruction Should Reinforce		
Knowledge	**Application**	**Skill Group**	**Skill**	**Description**
7.1 Define terms associated with landscaping installation		Foundation	Reading	Uses written resources (books, dictionaries, directories) to obtain factual information [1.3.23]
			Writing	Uses technical words and symbols [1.6.20]
7.2 Identify tools used in the installation of landscape plants		Foundation	Reading	Identifies relevant details, facts, and specifications [1.3.16]
		Thinking	Decision Making	Demonstrates decision-making skills [4.2.4]
7.3 Discuss the factors used in the comparison of different turf grasses		Foundation	Writing	Presents answers/conclusions in a clear and understandable form [1.6.13]
		Thinking	Problem Solving	Demonstrates logical reasoning in reaching a conclusion [4.4.2]
7.4 Describe accepted methods of lawn installation	7.4.1 Prepare a site for installation 7.4.2 Sod a site 7.4.3 Sprig a site 7.4.4 Seed a site	Foundation	Speaking	Applies/Uses technical terms as appropriate to audience [1.5.2]
		Thinking	Knowing How to Learn	Uses available resources to acquire new skills or improve skills [4.3.4]

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Knowledge	**Application**	**Skill Group**	**Skill**	**Description**
7.5 Demonstrate proper plant installation methods		Foundation	Speaking	Applies/Uses technical terms as appropriate to audience [1.5.2]
		Thinking	Knowing How to Learn	Uses available resources to acquire new skills or improve skills [4.3.4]
7.6 Distinguish between sprinkler and trickle irrigation		Foundation	Listening	Comprehends ideas and concepts related to landscape installation [1.2.1]
		Thinking	Problem Solving	Draws conclusions from what is read and gives possible solutions [4.4.5]

Unit 8: Landscape Maintenance
20 Hours

Terminology: Aeration, Crotch, Crown, Dormancy, Flail mower, Foliar burn, Girdled, Graft, Heading back, Heaving, Herbicide, Jump cutting, Lead branch, Pruning, Reel mower, Rotary mower, Scaffold branches, Scion, Stock, Suckers, Sunscald, Thinning out, Water sprouts, Weed, Wind burn

CAREER AND TECHNICAL SKILLS What The Student Should Be Able To Do		**ACADEMIC AND WORKPLACE SKILLS** What The Instruction Should Reinforce		
Knowledge	**Application**	**Skill Group**	**Skill**	**Description**
8.1 Define terms associated with landscape maintenance		Foundation	Reading	Uses written resources (books, dictionaries, directories) to obtain factual information [1.3.23]
			Writing	Uses technical words and symbols [1.6.20]
8.2 Discuss the importance of proper maintenance of landscapes		Foundation	Speaking	Participates in conversation, discussion, and group presentations [1.5.8]
		Personal Management	Organizational Effectiveness	Comprehends the organization's modes of operation [3.3.5]
8.3 Describe the types of pruning	8.3.1 Demonstrate proper pruning techniques	Foundation	Reading	Comprehends written specifications and applies them to a task [1.3.9]
		Thinking	Decision Making	Considers risks when making a decision [4.2.3]
8.4 Compare the methods of weed control in the landscape	8.4.1 Remove weeds from a landscape	Foundation	Writing	Adapts notes to a proper form [1.6.1]
	8.4.2 Install a weed cloth	Thinking	Reasoning	Determines which conclusions are correct when given a set of facts and a set of conclusions [4.5.3]

CAREER AND TECHNICAL SKILLS What The Student Should Be Able To Do		ACADEMIC AND WORKPLACE SKILLS What The Instruction Should Reinforce		
Knowledge	**Application**	**Skill Group**	**Skill**	**Description**
8.5 Identify tools used in landscape maintenance		Foundation	Reading	Locates pertinent information in documents such as manuals, graphs, and schedules to perform tasks [1.3.18]
		Personal Management	Organizational Effectiveness	Applies knowledge to implement work-related system or practice [3.3.4]
8.6 Discuss the maintenance of landscape tools	8.6.1 Perform basic maintenance on tools	Foundation	Writing	Organizes sentences into paragraphs [1.6.11]
	8.6.2 Sharpen blades	Interpersonal	Coaching	Helps others learn new skills [2.1.3]
	8.6.3 Maintain tools			
8.7 Demonstrate the proper techniques needed to water, fertilize, edge, and mulch		Foundation	Science	Solves practical problems using scientific methods and techniques [1.4.23]
		Thinking	Problem Solving	Comprehends ideas and concepts related to landscape maintenance [4.4.1]

Glossary

Unit 1: Introduction to Nursery and Landscaping Industry

1. Aesthetic -- attractive to the human senses
2. Entrepreneurship -- working for one's self
3. Landscape architect -- a licensed professional who practices landscape planning, usually on a scale larger than residential properties
4. Landscape contractor -- a professional who carries out the installation of landscapes
5. Landscape designer -- a professional who devotes all or part of a work day to the design of landscapes
6. Landscape Industry -- a service-based industry that serves by fabricating environments where people can live, work, play, or just pass time; these environments are primarily outdoors or in interior settings that seek to suggest outdoors
7. Landscape management -- the extended care of existing landscapes, usually under terms of a contract
8. Nursery -- any place where plants, shrubs, or trees are grown either for transplanting or grafting stocks; a group of young plants or trees in a plantation
9. Nursery industry -- a service-based industry that serves by providing plants, materials, and supplies for businesses and/or individuals
10. Nursery/Landscaping CDE – an FFA Career Development Event that allows for competition in the different aspects of Nursery/Landscaping
11. Ornamental horticulture -- the practice of using plants and other materials for decorative purposes
12. Placement – working for someone else
13. Proficiency – an FFA award for students conducting an SAE

Unit 2: Landscaping versus Xeriscaping

1. Hydrozoning -- grouping plants on the basis of their water needs
2. Landscaping -- a profession involving the design, installation, and maintenance of the outdoor human living environment
3. Xeriscaping -- techniques of landscaping that conserve water

Unit 3: Plant Selection

1. Annual -- a plant that completes its life cycle in one growing season

2. Balled & burlapped -- a form of plant preparation in which a large part of the root system is retained in the soil ball; the ball is wrapped in burlap to facilitate handling during sale and transplanting

3. Bare-rooted plant -- a form of plant preparation in which all soil is removed from the root system; the plant is lightweight and easier to handle during sale and transplanting

4. Bedding plants -- herbaceous plants pre-seeded and growing in a peat pot or packet container

5. Biennials -- a plant that lives for two growing seasons and dies

6. Botanical name -- the scientific name of plants that includes the genus and species

7. Branching habits -- a combination of the number of branches, the average size of branches, the flexibility of branches, and the vertical or horizontal direction of their growth

8. Bulb -- a flowering perennial that survives the winter as a dormant fleshy storage structure

9. Canopy -- the collective term for the foliage of a tree

10. Common name -- the name by which a plant is known to the general public

11. Containerized/Container grown -- a form of plant preparation for sale and transplanting; when purchased, the plant is growing with its root system intact within a plastic, metal, or tarpaper container

12. Cultivar -- a cultivated variety; a group of cultivated plants that are distinguished by any significant character and that retain their distinguishing features when reproduced sexually or asexually

13. Exotic plants -- plants that have been introduced to an area by human beings, not nature

14. Fibrous -- type of root system that is composed of profusely branched roots with many lateral rootlets; the fine roots of grass

15. Foundation planting -- the planting next to a building that helps it blend more comfortably into the surrounding landscape

16. Genus -- members of this group have similar characteristics and relate to each other; first word in the scientific name

17. Hardiness -- the ability of a plant to survive through the winter season

18. Hedge -- a fence or barrier formed by bushes, shrubs, or small trees growing close together in a line, sometimes with interwoven branches used as a screen

19. Herbaceous -- a type of plant that is non-woody; it has no bark

20. Microclimate -- regions that provide atypical growing conditions

21. Native plants -- a plant that evolved naturally within a certain locale

22. Naturalized plants -- plants that were introduced to an area as an exotic plant, but which have adapted so well that they may appear to be native

23. Ornamental grasses -- grasses produced, planted, and maintained for their beauty (Liriope)

24. Perennials -- plants that live more than two growing seasons; they usually are dormant during the winter

25. Root systems -- system used by plants for anchorage, uptake of nutrients, and storage of manufactured foods; these systems range from total tap root systems, with a large single root growing straight down into the soil, to full fibrous systems, with thousands of fine, hair-like roots spreading out in all directions

26. Silhouette -- the outline of an object viewed as dark against a light background

27. Species – a group of things that exhibit more similarities than the members of the genus; second word in a the scientific name

28. Tap root -- root system composed of one main root that grows straight down into the soil

29. Tree -- any woody, perennial plant that normally has one well-defined stem and a definitely formed crown; it is usually considered to have a minimum height of 15 feet

30. Variety -- a group of related plants that differs from other similar groups by characters too trivial or inconstant to be recognized as a species; often any category of lower rank than a species

31. Vine -- any woody or herbaceous plant that trails, climbs, or creeps as contrasted to those that stand without support

32. Woody plants -- any shrub, tree, or certain vines, as distinguished from herbaceous plants, that produces wood and has buds surviving above ground during the winter

Unit 4: Landscape Design

1. Axonometric views -- a drawing that permits multiple sides of an object to be seen in a single, measurable view

2. Balance -- the even distribution of materials on opposite sides of a central axis; there are three kinds of balance: symmetric, asymmetric, and proximal/distal

3. Computer aided design (CAD) -- the use of computer hardware and software to produce drawings

4. Elevation view -- a scaled drawing with two dimensions, one horizontal and one vertical

5. Focalization of interest -- principle of design that selects and positions visually strong items in the landscape composition

6. Foundation planting -- placing plants around the foundation of the house; this softens the corners and blocks the view of the foundation

7. Hardscape -- design materials that are not living plant materials; the term usually is applied to the constructed materials of a landscape

8. Incurve -- the center of a corner planting bed and a natural focal point

9. Landscape design -- the profession concerned with the planning and planting of outdoor space to secure the most desirable relationship between land forms, architecture, and plants to best meet human needs for function and beauty

10. Line -- the outline of plants, plant parts, and physical features

11. Masses -- solid vertical areas of plantings, buildings, walls, or land forms

12. Outcurve -- the sides of a corner planting

13. Perspective -- a drawing that permits multiple sides of an object to be seen in a single view; dimensions are not measurable

14. Plan view -- a measurable drawing seen as though the viewer's line of sight is perpendicular to the surface

15. Proportion -- principle of design concerned with the size relationships between all the features of the landscape

16. Rhythm and line -- principle of design; something is repeated at a standard interval, creating a rhythm; lines establish the shape and form of a landscape

17. Simplicity -- principle of design that makes the viewer comfortable in the landscape; does not imply simplistic

18. Subsoil -- that part of the soil profile that lies below the usual plow depth without any specific limitation in depth or kind of material; a B horizon, the first change with depth in texture or structure

19. Topsoil -- surface soils and subsurface soils that presumably are fertile soils, rich in organic matter or humus debris; top soil is found in the uppermost soil layer called the A horizon

20. Unity -- principle of design in which all separate parts contribute to the creation of the total design

21. Voids -- the horizontal open areas of the landscape

Unit 5: Landscape Process

1. Contour interval -- the vertical distance between contour lines

2. Contour lines -- broken lines found on a topographic map; they represent vertical elevation

3. Cut -- a grading practice that removes earth from a slope

4. Family living area -- the area of a landscape that is usually located toward the rear and side of a house; it is connected to the family living area of the house and is where the family relaxes and entertains guests; it is developed for full or partial privacy

5. Fill -- a grading practice that adds earth to a slope or material used to bring an area to grade

6. Final plans -- master drawing of a landscape design project that is graphically detailed and completely specific; it incorporates all of the suggestions and reactions of the client to earlier diagrams; these plans will be used for installation of the landscape

7. Functional diagrams -- loosely drawn freeform drawings used to begin the arrangements of the client's site; these help the designer make important logical decisions concerning layout of the site, size requirements of each use area, circulation patterns, potential conflicts and the relationship of off-site features to on-site areas

8. Grading -- the process of changing the form of the land either by adding or removing earth

9. Preliminary designs -- the designer's first draft version of how each area of the landscape will be shaped; it is suitable for presenting the client for review in order to obtain feedback

10. Private living area -- the area of a landscape that is developed for total privacy; it is completely screened; it should be accessible from the private areas of the house

11. Public area -- the area of a landscape that is seen by everyone who drives or walks past; it is also the area through which everyone passes who enters a building or house; it should be connected to the public area of the house

12. Service area -- the area of a landscape that is used for service; it is usually screened from view and located near the kitchen or other indoor service area

13. Site analysis -- an accurate sketch of the site to be landscaped that includes everything currently on the site recorded as to its relationship to everything else currently on the site

14. Slope -- a measurement that compares the horizontal length to the vertical rise or fall of land; the measurement can be determined from a topographic map

15. Terrain -- the rise and fall of the land

16. Topography -- a record of an area's terrain

Unit 6: Landscape Contracting

1. Client -- the person or organization that owns and provides the financing for a project
2. Contract -- an agreement between two parties that is legally binding
3. Contractor -- party in contract with the client or the client's representatives
4. Estimate -- an approximation of the price that a customer will be charged for a landscape project
5. Estimator -- the individual usually assigned to do the landscape take-off
6. Subcontractor -- firm in contract with the prime contract holder to provide selected services for the accomplishment of a project
7. Take-off -- the calculation of quantities from plans and specifications

Unit 7: Landscape Installation

1. Antidesiccants -- a liquid sprayed on plants to reduce water loss, transplant shock, windburn, and sunscald
2. Calibration -- the adjustment of a piece of equipment so it distributes a given material at the rate desired
3. Discharge rate -- the amount of water flowing from the irrigation system over a measured period of time, usually measured in gallons per minute or hour (gpm or gph)
4. Drainage -- the act of water passing through the root area of soil; soil is well drained if water disappears in 10 minutes or less from a shrub or tree planting
5. Drip tubing -- thin black tubing used for trickle irrigation
6. Emitter -- the device that functions as a sprinkler head for trickle irrigation
7. Grading -- the moving of soil and the reshaping of the land
8. Humus -- created by decaying organic matter, it aids the soil in moisture retention
9. Loam -- soil that contains approximately equal amounts of clay, silt, and sand (a desirable condition)
10. Plugs -- small squares, rectangles, or circles of sod cut about two inches thick used to reestablish a lawn
11. Precipitation rate -- the amount of water placed over a landscape area; it is measured in inches of water per hour
12. Rhizome -- an underground stem; new shoots are sent to the surface some distance out from the parent plant; each new plant develops its own root system and becomes independent of the parent plant
13. Seed analysis label -- a breakdown of the contents of the seed package on which it appears; must appear on every package of seeds sold
14. Sodding -- a method of lawn installation that uses strips of live, growing grass; it produces an immediate effect on the landscape but is more costly than seeding
15. Soil texture -- the composition of a soil as determined by the proportion of sand, silt, and clay that it contains
16. Spray pattern -- the distribution pattern of a specific sprinkler head
17. Sprigs -- pieces of grass shoots; sprigs are commonly used to establish warm-season grass plantings

18. Sprinkler head -- the device through which water leaves the pipe and is propelled onto the lawn or plantings

19. Sprinkler irrigation -- water applied under pressure over the tops of plants

20. Stolonizing -- a form of sprigging in which the sprigs are broadcast over the site and covered lightly with soil

21. Stolons -- stems that grow parallel to the ground; new plants develop from it and become independent of the parent plant

22. Trickle irrigation -- a form of irrigation in which water is applied slowly over a longer period of time

23. Turf -- the plants in a ground cover and the soil in which the roots grow; a collection of grass plants that form a ground cover

Unit 8: Landscape Maintenance

1. Aeration -- the addition of air into the soil; it is accomplished during soil conditioning with materials such as sand or peat moss; it can be encouraged in established lawns by the use of machines called aerators

2. Crotch -- the point on a tree at which two branches or a branch and the trunk meet

3. Crown -- the point at which above-ground plant parts and the root systems meet

4. Dormancy -- a period of rest that perennial plants experience during the winter season; they continue to live, but have little or no growth

5. Flail mower -- a mower used for turf grasses that are only cut a few times each year

6. Foliar burn -- a reaction to chemicals in fertilizer

7. Girdling -- the complete removal of a strip of bark around the main stem of a plant; after girdling, the ability of nutrients to pass from roots to leaves is lost, causing the eventual death of the plant

8. Graft -- a manmade bond between two different plants, one selected for its above-ground qualities (scion) and the other for its below-ground qualities (stock)

9. Heading back -- a pruning technique that shortens a shrub branch without totally removing it

10. Heaving -- an action that causes shallowly rooted plants, such as grasses, groundcovers, and bulbs, to be forced to the surface of the soil; the action results from repeated freezing and thawing of the soil surface

11. Herbicide -- a chemical used to kill weeds

12. Jump cutting -- a pruning technique for the removal of large limbs from trees without stripping bark from the trunk; it involves a series of three cuts

13. Lead branch -- the most important branch of a tree; it cannot be removed without destroying the distinctive shape of the tree

14. Pruning -- the removal of a portion of a plant for better shape or more fruitful growth

15. Reel mower -- a mower used for home, recreational, and commercial lawn maintenance; the blades rotate in the same direction as the wheels and cut the grass by pushing it against a non-rotating bed knife at the rear base of the mower

16. Rotary mower -- a mower used for home, recreational, and commercial lawn maintenance; the blades move like a ceiling fan, parallel to the surface of the lawn, cutting the grass off as they revolve

17. Scaffold branches -- a lateral branch of a tree

18. Scion -- shoot portion of a tree

19. Stock -- root portion of a tree

20. Suckers -- a succulent branch that originates from the root system; the vegetation of suckers is abnormal and undesirable

21. Sunscald -- a temperature-induced form of winter injury; the winter sun thaws the above-ground plant tissue, causing it to lose water; the roots remain frozen and thereby unable to replace the water; the result is drying of the tissue

22. Thinning out -- a pruning technique that removes a shrub branch at or near the crown of the plant

23. Water sprouts -- a succulent branch that grows from the trunk of a tree; the vegetation of water sprouts is abnormal and undesirable

24. Weed -- a plant growing where it is not wanted and with no economic value

25. Windburn -- drying out of plant tissue (especially evergreens) by the winter wind